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Notes on some species of Tenebrionidae from the Yaeyama Islands

(Insecta : Coleoptera)

By

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中根猛彦*：八重山群島に産するゴミムシダマシ科の甲虫数種について

Since FAIRMAIRE reported first three tenebrionid beetles from the Ishigaki Island in 1897, only a few authors studied in the Tenebrionidae of the Yaeyama Islands. But, in recent years a considerable number of insect collectors visited these islands and an amount of material has been accumulated in several institutional or private collections. Under these conditions M. T. CHÛJÔ (1966) recorded nearly forty species from the Yaeyama Islands in his revisional work on the Tenebrionidae of the Ryukyu Islands, and then I (1968) added two and CHÛJÔ (1970) a few species to the fauna of Yaeyama Tenebrionidae.

In the last May I had an opportunity of insect collecting in the two islands of the Yaeyama group, Ishigaki and Iriomote, and found some tenebrionids worthy to be noted. The present paper deals with a part of these beetles.

Genus **Diphyrrhynchus** FAIRMAIRE, 1849

Rev. Mag. Zool., (2) 1: 445.

The species belonging to this genus are exclusively halophilous and found under seaweed on the sandy sea-beach. According to BLAIR (1940) the genus is pre-eminently Melanesian extending into Australia, except one species known from Singapore and Ceylon and another from the Seychelles Islands. From our territory two species were recently described and I found the third at Ohara, Iriomote Is.

Diphyrrhynchus shibatai KASZAB, 1963

(Pl. 11: 1)

Ent. Rev. Japan, 16(2) : 43-44.

KASZAB described this species from Amami-Oshima and M. T. CHÛJÔ (1966) recorded it from Iriomote. A small series of examples were obtained at Ohara associated with the

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following species. Whole upper surface of this species appears to be somewhat opaque owing to the clearly impressed microreticulation. The stria punctures of elytra are somewhat finer and less conspicuous than those in the following species and the striae are fine but rather distinct even on the basal portion of the dorsum.

***Diphyrrhynchus iriomotensis* M. T. CHŪJŌ, 1966**

(Pl. 11: 2)

J. Fac. Agr., Kyushu Univ., 14 (1): 4–5, pl. 1– fig. 3, pl. 2– fig. 1.

I found this abundantly at the sea-shore of Ohara, Iriomote, As stated by M. T. CHŪJŌ this species is larger and stouter than *D. shibatai*, though closely related. The upper surface is wholly covered with a microreticulation as in the preceding species, but the microsculpture is superficial and the surface is apparently shining.

***Diphyrrhynchus oharensis* NAKANE n. sp.**

(Pl. 11: 3)

Black to pitchy brown, with a faint bronzy lustre; mouth part, claws and setae of legs reddish brown, and frequently under surface, base of antennae and of legs and tarsi also reddish.

Oval, subopaque and convex, surface distinctly microreticulate and rather sparsely minutely punctulate. Head transverse, weakly convex, outwardly a little reflexed-marginate; clypeus deeply emarginate in front for the reception of subquadrate labrum, rounded on both sides and separated from frons by an arched groove, which is obsolete in middle; genae obtusely angulate at base and scarcely more prominent laterally than eyes and then strongly convergent forwards. Eyes coarsely faceted, relatively small and oblique, the lower portion a little larger than the upper; upper interocular space four times as wide as an eye seen from above. Mentum small, narrowed posteriorly and gibbose at middle. Antennae as long as the width of head, very gradually widened towards apex, with five-jointed club; 2nd joint small, 3rd longer than wide, 4th to 6th as long as wide and subequal, 7th to 10th transverse, and 11th subcircular. Pronotum transverse, simply convex, nearly twice as wide as long, widest at base, gradually narrowed forwards, with sides sharply but rather finely margined and slightly arched anteriorly, front margin broadly arched-emarginate, very finely margined on both sides, front angles obtusely prominent, basal margin sublinear with slight emargination on both sides, hind angles rectangular; disc with the punctures very minute, finer than those on head, sparse in middle and a little closer at sides, and with a small impression on each side at base. Scutellum broadly triangular and flat. Elytra oval, convex, 1.3 times as long as wide, 1.2 times as wide as prothorax, widest a little before middle, with the sides gently rounded, sharply reflexed along margin, which is visible from above; each elytron bearing eight rows of very fine punctures, striae only at apical portion, the intervals flat on dorsum, convex at apex and along marginal channel, and 7th costate at apical portion; 1st and 2nd puncture rows entire, 3rd and 6th united with

each other at apex, 4th and 5th ending well before elytral apex and usually united at end as 7th and 8th. Under side subopaque, largely but inconspicuously bearing very short hairs. Prosternum microreticulate, sparsely finely punctured, medially subcostate, with the process flat, rather broadly lanceolate and immarginate; propleura and sides of prosternum finely punctured and shallowly irregularly wrinkled. Mesosternum deeply excavated in middle, with a V-shaped carina enclosing the excavation. Metasternum broadly shining in middle and finely punctured. Abdomen somewhat coarsely punctured and shallowly longitudinally wrinkled. Femora rather finely but distinctly punctured; tibiae coarsely roughened and setose, front tibiae strongly dilated to apex, elongate triangular; four anterior tarsi, especially in male, with the 1st joint triangularly dilated and 2nd and 3rd strongly dilated and transverse.

Length: 4.8–5.6 mm; width: 2.8–3.4 mm.

Holotype (♂), allotype (♀) & 2 paratypes (1♂1♀): Ohara, Iriomote Is., Yaeyama Is., Ryukyu, 18.v. 1973, T. NAKANE 1gt.

This species seems to me to be closely related to *D. carolinensis* BLAIR from Peleliu Island, but the punctuation of upper surface is extremely fine and rather sparse.

A few specimens from the Botel Tobago Island (Kotosho) before me appear to be conspecific with this species, but the body is more blackish almost lacking in bronzy lustre and the male genitalia are a little longer: subsp. **botelensis** NAKANE nov. 5.2–6.2 mm. Holotype (♂), allotype (♀) & 2 paratypes (1♂1♀): Irarai, Botel-Tobago Is. (Kotosho), v. 1932, Y. YANO lgt. (*Nakane*)

Genus **Platydemia** CASTELNAU et BRULLÉ, 1831

Ann. Soc. Nat. Paris, 23: 350 (26).

About three hundred species of this genus are known from various parts of the world, of which fifteen are recorded from Japan. M. T. CHÛJÔ (1966) reported four species as inhabiting the Yaeyama Islands and CHÛJÔ (1970) recorded another from the Iriomote Island.

Platydemia subfascia (WALKER, 1858)

Ann. Mag. Nat. Hist., (3) 2: 284 (*Alphitophagus*).

This species was originally described from Ceylon and is widely distributed in the East Asiatic regions including Japan. The individuals collected from the Yaeyama Islands differ from those of other islands of Japan in having the pronotum being reddish brown, though often somewhat infuscate on the disc, and the elytral oblique fasciae a little narrower and somewhat ill-defined: subsp. **yaeyama** NAKANE nov. 3.7–4.3 mm. Holotype (♂), allotype (♀) & 15 paratypes: Mt. Goza-dake, Iriomote Is., 17. v. 1973, T. NAKANE 1gt.; 1 paratype: Mt. Omoto-dake, Ishigaki Is., 12. v. 1973, T. NAKANE 1gt.

Platydema marseuli LEWIS, 1894

Ann. Mag. Nat. Hist., (6) 13: 393–394.

This is rather common in the Yaeyama Islands.

Platydema pallidicolle (LEWIS, 1894)

Ann. Mag. Nat. Hist., (6) 13: 398 (*Alphitophagus*).

M. T. CHŪJŌ (1966) recorded this from the Iriomote Island, but I could not find it during my collecting trip.

Platydema fumosum LEWIS, 1894

Ann. Mag. Nat. Hist., (6) 13: 395–396.

Only one male specimen is available for the present study. In the punctuation of elytral striae it belongs to subsp. *formosanum* GEBIEN (Phil. J. Sci., 27: 589) described from Formosa, rather than to subsp. *kawaii* NAKANE, 1968 (loc. cit.: 76) from Amami-Oshima. The male genitalia of the above specimen are a little broader and more sharply pointed at the apex, as compared with those of specimens from Honshu or Amami-Oshima.

Platydema sakishimense NAKANE n. sp.

(Pl. 11: 4)

?*Platydema umbratum*: CHŪJŌ, 1970, Mem. Fac. Educ., Kagawa Univ. Pt. 2 (192): 44.

Dark chestnut brown, with mouth organs, palpi, base of antennae, elytral epipleura, tarsi and claws reddish brown, and under surface partly paler.

Oblong ovate, moderately convex and opaque. Head transverse, slightly convex, sub-opaque, rather finely and moderately closely punctured, with the interspace microreticulate; clypeus broad, strongly transverse, separated from frons by a distinct transverse groove, which bends obliquely forwards on both sides; genae weakly convex, strongly convergent forwards, sulcate along front margin of eyes. Labrum short, strongly transverse, roughly punctured and hairy. Eyes large, transverse, oblique and narrowed inwards, the lower portion a little larger than the upper; upper interocular space scarcely as wide as an eye. Mentum trapezoidal, convex and narrowed posteriorly. Terminal joint of maxillary palpi dilated to obliquely truncate apex and that of labialpalpi small, elongate securiform. Antennae about as long as head and prothorax combined; 2nd joint small, as long as wide, 3rd twice as long as 2nd, 4th to 11th dilated, opaque, forming a loosely articulated club, weakly compressed, 4th triangular, a little longer than wide but shorter than 3rd, 5th to 10th subequal, not longer than wide, broadly subtriangular, and 11th rounded, broadly oval. Pronotum evenly, not strongly convex, about 1.8 times as wide as long, shallowly and moderately closely punctured, strongly narrowed from middle to apex, with sides arched and rather finely margined, front margin weakly plainly emarginate, front angles obtusely produced, basal margin bisinuate, hind

angles subrectangular, disc with a shallow ill-defined oblong impression on each side before base, which is relatively strongly and clearly punctured. Elytra ovate, simply convex, 1.4 times as long as wide, 1.2 times as wide as and three times as long as prothorax, subparallel-sided but widest at about middle, with sides clearly reflexed -marginate, curved at base and rounded in posterior half; disc finely punctate-striate, the intervals flat on dorsum, slightly convex at sides; scutellary striole short, 1st and 2nd, 3rd and 4th, 5th and 6th united or approximated respectively at base, and 4th and 5th, 6th and 7th also united or nearly so at apex respectively before elytral apex. Under side subshining, sparsely bearing minute hairs. Prosternum finely and rugosely punctured, not strongly raised medially, with the process rather flat, lanceolate and margined; propleura irregularly shallowly wrinkled. Mesosternum deeply hollowed in middle. Metasternum rather smooth, sparsely and finely punctured. Abdomen with first three sternite strongly punctured and longitudinally wrinkled, and last two sternite very finely and moderately closely punctured. Legs relatively slender; femora finely but distinctly punctured, dilated; tibiae long and slender, crenulate along outer margin, roughly punctured or granulate, four hinder ones markedly bent in middle and then gradually dilated to apex in male; tarsi rather slender, with 1st joint long in hind legs.

Length : 7–9 mm; width : 3.8–4.7 mm.

Holotype (♂), allotype (♀) & 2 paratypes (2♀): Mt. Goza-dake, Iriomote Is., Yaeyama Is., Ryukyu, 17. v. 1973, T. NAKANE 1gt.

This new species is closely allied to *P. umbratum* MARSEUL (Pl. 11: 5) from Japan, but the body is smaller, paler in colour and more parallel-sided, the prothorax is larger and more rounded at sides, four hinder tibiae of the male bear a row of conspicuous tubercles along the inner margin, and the male genitalia are about half as long as those in *P. umbratum* and lacking in apical dilation.

Platydema sauteri GEBIEN, 1914

(Pl. 11: 6)

Arch. Natg., 79, A (9): 15–16.

GEBIEN described this originally from Formosa. Two male specimens obtained at Mt. Omoto-dake, Ishigaki Island, are probably belonging to this species, but the body is somewhat smaller, oblong oval in shape, and the pronotum broadly bears greenish bronzy tinges in the middle: subsp. **omoto** NAKANE nov. 7.5–8 mm. Holotype (♂) & paratype (♂): Mt. Omoto-dake, Ishigaki Is., 12. v. 1973, T. NAKANE 1gt.

要 約

八重山群島のゴミムシダマシ科甲虫については近年、中条道崇(1966)がまとめて報告しており、これに他の数種の記録を加えると40種余が知られているが、なお検討を要するものがある。本報には去る5月に石垣・西表両島で採集した際えられたゴミムシダマシ類について調査した結果の一部を述べた。

Diphyrrhynchus 属の種は好海性で、南太平洋域からオーストラリアにかけて主として分布し、一部がインド洋方面に産するが、近年 KASZAB が奄美大島から、中条道崇が西表島から各1種を記載した。今回の調査でえられた第3の種は西表島大原で両種に混じて採集され、ペリリュー島から記載された *D. carolinensis*

BLAIR に近縁と思われ, *D. oharensis* と名付けた.

Platydema 属の種は八重山群島から5種記録されていたが, さらに1種を追加し台湾産の *P. sauteri* GEBIEN の亜種と認め (subsp. *omoto*), *P. umbratum* MARSEUL として報告されていたものを別種 *P. sakishimensis* として記載した. また東アジアに広く分布する *P. subfascia* WALKER がこの群島において特殊な色調を示すので亜種 (subsp. *yaeyama*) として区別した.

Explanation of Plate 11

- 1: *Diphyrrhynchus shibatai* KASZAB ♂
- 2: *Diphyrrhynchus iriomotensis* M.T. CHÛJÔ ♂
- 3: *Diphyrrhynchus oharensis* NAKANE n. sp. ♂
- 4: *Platydema sakishimense* NAKANE n. sp. ♂
- 5: *Platydema umbratum* MARSEUL ♂
- 6: *Platydema sauteri omoto* NAKANE n. subsp. ♂

